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**Remarks**

Entry of the above-noted amendments, reconsideration of the application, and allowance of all claims pending are respectfully requested. By this amendment, claims 1, 3, 6, 11, and 14-15 are amended and claims 17-20 are added. These amendments to the claims constitute a bona fide attempt by applicant to advance prosecution of the application and obtain allowance of certain claims, and are in no way meant to acquiesce to the substance of the rejections. Support for the amendments can be found throughout the specification (e.g., paragraphs 10, 16, 17, and 22), figures (e.g., FIGS. 1 and 3-6), and claims. Claims 1-20 are pending.

**Allowable Subject Matter:**

Claims 3, 6, and 7 were objected to as being dependent upon rejected base claim 1, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants gratefully acknowledge this indication of allowability, and have rewritten claim 6 in independent form including all of the limitations of the base claim and any intervening claims (there were none). Applicants are merely deferring the rewriting of claim 3 in independent form, pending a determination of patentability of base claim 1.

Claims 14 and 15 were objected to as being dependent upon rejected base claim 11, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Applicants gratefully acknowledge this indication of allowability, and have rewritten claims 14 and 15 in independent form including all of the limitations of the base claim 11 and any intervening claims (there were none).

An indication of allowance of claims 6, 7, 14, and 15 is therefore respectfully requested.

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Claim Rejections - 35 U.S.C. §§ 102 & 103

Claims 1, 2, 8-13, and 16 are rejected under 35 U.S.C. § 102(e) as being anticipated by French, et al. (U.S. Patent No. 6,317,494; "French"). Claims 4-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over French in view of Frantz, et al. (U.S. Patent No. 5,802,169; "Frantz"). These rejections are respectfully, but most strenuously, traversed.

It is well-settled that there is no anticipation unless (1) all the same elements are (2) found in exactly the same situation and (3) are united in the same way to (4) perform the identical function. Since the Office Action's citation to the applied reference is missing at least one element of each of applicants' independent claims, applicants respectfully submit that the claimed invention is not anticipated by the Office Action's citation to the applied reference, as further discussed below.

Applicants respectfully submit that the Office Action's citations to the applied references, with or without combination and/or modification, assuming, *arguendo*, that the combination and/or modification of the Office Action's citations to the applied references is proper, do not teach or suggest one or more elements of the claimed invention, as further discussed below.

For explanatory purposes, applicants discuss herein one or more differences between the Office Action's citations to the applied references and the claimed invention with reference to one or more parts of the applied references. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the Office Action's citations to the applied references correspond to the claimed invention.

Applicants respectfully submit that the Office Action's citations to the applied references do not teach or suggest one or more elements of the claimed invention. A careful reading of the Office Action's citations to the applied references fails to teach or suggest, for example,

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detecting whether the DSL line card is connected to said subscriber line based on the impedance measurement at the DSL frequencies.

French (Abstract, lines 1-14) discloses a microprocessor for measuring voice-band impedance:

A codec which normally provides impedance synthesis, filtering, suppression of receive signal echoes, and gain equalization for a plurality of line circuits under the control of a microprocessor includes an arrangement for ascertaining the actual impedance of each line that it serves and making a corresponding adjustment of the receive and transmit equalizers and other codec parameters. A series of short tones having precisely known amplitude frequencies throughout the voice band are applied to the line when the line is on-hook and during the off-hook interval before tone is returned to the subscriber. Impedance is measured by observing the echo and obtaining an estimate of the phase by performing a least squared fit during a time interval not exceeding the usual interdigital call signaling interval.

French discloses measuring impedance using frequencies throughout the voice band. The Office Action's citation to French fails to disclose an impedance measurement at frequencies in a DSL band and detecting whether a DSL line card is connected based on the measurement. Simply missing from the Office Action's citation to French is any mention of detecting whether the DSL line card is connected to said subscriber line based on the impedance measurement at the DSL frequencies.

So, the Office Action's citation to French fails to satisfy at least one of the limitations recited in applicants' independent claim 1.

The shortcomings of the Office Action's citation to French relative to certain elements of the claimed invention have been discussed above. The Office Action proposes a combination of the citation to French with a citation to Frantz. However, the Office Action's citation to Frantz does not overcome the deficiency of the Office Action's citation to French. Applicants

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respectfully submit that the proposed combination of the Office Action's citation to French with the Office Action's citation to Frantz fails to provide the required configuration, assuming, *arguendo*, that the combination of the Office Action's citation to French with the Office Action's citation to Frantz is proper.

Frantz (column 5, lines 21-30) discloses measuring reflected power in the band range of the transmission media:

After transmitting each tone, the reflected power at that frequency is measured. In a voice telephony application, frequencies would be used in the band range of the transmission media, which typically would be 200 Hz to 3800 Hz. Optimally, there would be several selected frequencies which are not multiples of each other, i.e. not 500, 1000, 1500, and 2000 Hz, but something more like 700, 1200, 1800, 1700, 2100 Hz, thereby avoiding harmonics of each other as much as possible.

Frantz discloses using frequencies in the voice band. The Office Action's citation to Frantz fails to disclose using frequencies in a DSL band. Simply missing from the Office Action's citation to French is any mention of detecting whether the DSL line card is connected to said subscriber line based on the impedance measurement at the DSL frequencies.

So, the Office Action's citation to Frantz fails to satisfy at least one of the limitations recited in applicants' independent claim 1.

The Office Action's citations to French and Frantz all fail to meet at least one of applicants' claimed features. For example, there is no teaching or suggestion in the Office Action's citations to French or Frantz of detecting whether the DSL line card is connected to said subscriber line based on the impedance measurement at the DSL frequencies, as recited in applicants' independent claim 1.

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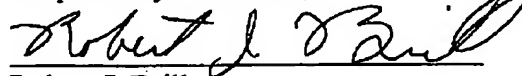
Furthermore, the Office Action does not allege that the art of record provides any teaching, suggestion, or incentive for modifying the citations to French and/or Frantz to provide the claimed configuration.

For all the reasons presented above with reference to claim 1, claims 1, 6, 11, 14, 15, and 17 are believed neither anticipated nor obvious over the art of the record. The corresponding dependent claims are believed allowable for the same reasons as independent claims 1, 6, 11, and 17, as well as for their own additional characterizations.

Withdrawal of the §§ 102 and 103 rejections is therefore respectfully requested.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicant's attorney.

Respectfully submitted,



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